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Shampoos

Shampoos are [cleansers](#) designed to clean your hair and your scalp. Most shampoos clean your hair very well. Where they differ is how your hair feels afterward, depending partly on the strength of the [surfactants](#). Stronger "clarifying" shampoos should not be used more than once or twice a week. Those designed for daily use contain mild surfactants and are less likely to irritate the scalp.

Ingredients of shampoos

All shampoos are 80–90% water with 2–8% detergents and foaming agents and about 1% fragrance and preservatives. Shampoos often contain antistatic and detangling agents as well as thickeners, humectants, sequestering agents, colour and conditioners.

Effective detergents include sodium lauryl sulfate, laureth sulfate and sulfosuccinate. They give the hair a "squeaky clean" feel.

Clarifying shampoos contain heavy-duty surfactants. Body building shampoos contain proteins that bond to hair and increase its volume.

Moisturizing shampoos are the best choice for dry, flyaway hair. They can cut down on static, make split ends look better (by gluing them together with proteins), and pull moisture onto hair to keep it from getting too dry.

Revitalizing or replenishing shampoos are made for color-treated, permed, and damaged hair and contain gentler surfactants. They may include ingredients designed to retain colour or to help to repair split ends, but there's little evidence that they are effective.

2-in-1 shampoos with conditioner save time but may leave your hair feeling too dry or sticky.

Baby shampoos contain amphoterics and have less detergent and are not designed for cleaning adult hair, especially when a lot of styling products have been used. They may be appropriate for someone that has damaged hair and who finds standard shampoos too harsh.

How to use a shampoo

Wet the scalp and hair using warm or cool water (hot water can be drying to the hair and scalp). Apply a 5 to 10-cent amount of shampoo to palm and rub hands together to evenly distribute. Apply the shampoo to the scalp. Massage gently with your fingertips for about 30 seconds and then rinse thoroughly.

You only need to lather your hair once under normal conditions. Lather is destroyed by sebum so an oily scalp may require a second shampoo. Excessive lather is wasteful: it doesn't clean hair any better. Shampoo should be easy to rinse off, but conditioners, styling products and chemical processes may leave a residue.

After rinsing, apply some conditioner in one hand and rub palms together to evenly distribute. Apply conditioner from the middle of the hair shaft down to ends. Avoid the scalp unless scalp is dry. Comb conditioner through hair to distribute product evenly. Leave conditioner on hair for a few seconds to help smooth the cuticle. Rinse thoroughly.

Conditioners are designed to counteract the effect of detergents, repair static electricity and split ends. A silicone film smoothes cuticles and reduces friction and hair breakage, and maintains colour. Conditioners often contain anionics for softness and manageability.

Medicated shampoos

Medicated shampoos may contain [salicylic acid](#) to loosen flakes of skin, and [selenium sulfide](#), zinc pyrithione, [ketoconazole](#) or ciclopirox to reduce the numbers of *Malassezia* yeasts on the scalp. They are very helpful in [dandruff and seborrhoeic dermatitis](#). They may also help treat scalp [psoriasis](#) and [atopic dermatitis](#), but often shampoos containing [coal tar](#) are more useful in these conditions.

Medicated shampoos need to be left on for longer than normal shampoos. Ideally, make the hair wet 10 minutes before your shower/bath. Apply medicated shampoo as above, and massage gently into the scalp. Leave for 10 minutes and rinse off well.

You may still use a conditioner afterwards.

Skin problems due to shampoos

Shampoos can irritate and cause scalp problems. These are rare with modern products made by reputable manufacturers if they have been designed for sensitive skin and are used appropriately. Overwashing may have the following effects:

- The pH of the skin surface may change: look for pH-balanced shampoos.
- The number and type of bacteria and yeasts on the skin surface may change, resulting in dandruff or [seborrhoeic dermatitis](#).
- The surface oil film ([sebum](#)) is removed, allowing greater water loss through the epidermis to the skin surface, from where it evaporates.
- The de-fatted skin may become excessively dry.
- The surface horny cells may be loosened, disturbing barrier function and allowing more water loss. The skin becomes more permeable to chemicals such as hair dye and perming solution.
- [Dry skin](#) is more prone to infection with *Staphylococcus aureus*, resulting in [impetigo](#).
- [Irritant contact dermatitis](#) (red, dry, chafed skin) may develop. This may be provoked by the dry skin itself, or by a particular surfactant in the shampoo. Sodium lauryl sulphate is more irritating than sodium laureth sulphate for example.
- Stinging, especially if dermatitis is already present.
- Contact urticaria (immediate redness, itching and swelling) may arise due to a fragrance or preservative.
- [Allergic contact dermatitis](#) (a delayed but persistent reaction) may develop to a component of the shampoo. Because they are rinsed off, true contact allergy to shampoo is rare. However it may result from:
 - Botanicals such as [chamomile](#), lavender and rose oil
 - Preservatives, such as [Kathon CG](#) or [quaternium-15](#)
 - [Fragrances](#)
- Protein contact dermatitis, a rare mixture of contact urticaria and allergic dermatitis, due to a protein component such as peanut or oatmeal.

Hypoallergenic products

The manufacturers of hypoallergenic shampoos have tried to avoid using substances that are likely to cause contact allergy. Their products are often "fragrance-free" (low levels of masking fragrances are permitted), "mild" and "non-irritating". If you have [oily skin](#) (seborrhoea), choose shampoos designed for your skin type.

However, even hypoallergenic products may still be irritating to those with very sensitive skin, and they may still rarely cause [contact allergy](#).

Labelling in the USA

For the US, the [FDA](#) states: "If a cosmetic claim is made on the label of a "true" soap or cleanser, such as

moisturizing or deodorizing, the product must meet all FDA requirements for a cosmetic, and the label must list all ingredients. If a drug claim is made on a cleanser or soap, such as antibacterial, antiperspirant, or anti acne, the product is a drug, and the label must list all active ingredients, as is required for all drug products."

There are no specific labelling requirements in New Zealand.

Related information

On DermNet NZ:

- [Dandruff and seborrhoeic dermatitis](#)
- [Dermatitis](#)
- [Allergic contact dermatitis](#)
- [Irritant contact dermatitis](#)
- [Emollients](#)
- [Soaps & cleansers](#)

Other websites:

- [The Soap and Detergent Association](#)

Author: [Dr Amanda Oakley](#) MBChB FRACP, Dept of Dermatology Health Waikato

DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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